Date: Sat, 23 Apr 94 00:35:42 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V94 #446
To: Info-Hams

Info-Hams Digest Sat, 23 Apr 94 Volume 94 : Issue 446

Today's Topics:

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 21 Apr 1994 14:07:15 GMT
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!noc.near.net!jericho.mc.com!fugu!
levine@network.ucsd.edu
Subject: Kenwood TH-78A *OR* Yaesu FT-530
To: info-hams@ucsd.edu

In article 2p41h0INNab5@hpsdlgd9.sdd.hp.com, craigb@sdd.hp.com (Craig Bosworth)
writes:
-->I have a TH-78A. I'd like to point out a couple of misconceptions
-->below:
-->
-->In article <STEVE.94Apr19184558@hobbes.vigra.com> steve@vigra.com writes:
-->>The Yaesu has "CTCSS" included while it's an extra option on the
-->>Kenwood.
-->

-->This is not true. The Kenwood has both PL encode and decode (the
-->decode is somewhat useful for screening out intermod.). The Kenwood
-->does not have PL scan. (BTW, PL and CTCSS are synonyms which
-->describe the use of a subaudible tone to break squelch on a receiver.
-->Many repeaters require a PL tone in order for them to key up.)
-->
-->>The Yaesu has 82 memories, the Kenwood 50 (expandable to 250?). The
-->>Yaesu has a light-up keypad, and I don't think the Kenwood does.
-->

some stuff deleted....

The winner feature on the FT530 is the voltmeter display.
It is the only HT I know of with that feature. You really
know to replace the pack before y u st rt bre king up.

Bob Levine KD1GG 7J1AIS VK2GYN   formerly KA1JFP
levine@mc.com   <--Internet email   Phone(508) 256-1300 x247
kd1gg@wa1phy.ma <--Packet Mail   FAX(508) 256-3599

Date: 22 Apr 94 14:15:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$112.2L.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-112.N
2Line Orbital Elements 112.AMSAT

HR AMSAT ORBITAL ELEMENTS FOR AMATEUR SATELLITES IN NASA FORMAT
FROM WA5QGD FORT WORTH,TX April 22, 1994
BID: $ORBS-112.N

DECODE 2-LINE ELSETS WITH THE FOLLOWING KEY:
1 AAAAAU 00 0 0 BBBBB.BBBBBBBB .CCCCCCCC 00000-0 00000-0 0 DDDZ
2 AAAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.IIII JJ.JJJJJJJJKKKKKZ
KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

TO ALL RADIO AMATEURS BT

AO-10
1 14129U 83058B   94105.57495596 -.00000135 00000-0 10000-3 0 2740

```
2 14129  27.1808 332.1525 6020888 170.5875 209.8109  2.05879133 81490
UO-11
1 14781U 84021B   94109.04608251  .00000187  00000-0  39526-4 0  6829
2 14781  97.7897 126.5360 0013014  97.3621 262.9075 14.69192084541623
RS-10/11
1 18129U 87054A   94108.21130139  .00000038  00000-0  24654-4 0  8903
2 18129  82.9285  13.1768 0010648 184.3188 175.7885 13.72335054341681
AO-13
1 19216U 88051B   94102.44882608 -.00000591  00000-0  10000-4 0  9011
2 19216  57.8540 258.2544 7212470 338.9704   2.1469  2.09726746 44639
FO-20
1 20480U 90013C   94106.93317526 -.00000013  00000-0  35320-4 0  6767
2 20480  99.0282 270.3543 0541421 118.2022 247.4845 12.83225494196272
AO-21
1 21087U 91006A   94110.16310556  .00000093  00000-0  82657-4 0  4557
2 21087  82.9443 185.6439 0033668 245.5203 114.2440 13.74538249161610
RS-12/13
1 21089U 91007A   94108.30764982  .00000028  00000-0  14478-4 0  6803
2 21089  82.9200  55.8515 0027920 277.6170  82.1811 13.74038670160425
ARSENE
1 22654U 93031B   94110.18598093 -.00000078  00000-0  00000 0 0  2496
2 22654   1.7263 102.2335 2923372 178.7851 185.7394  1.42200998   373
UO-14
1 20437U 90005B   94107.20453956  .00000042  00000-0  33213-4 0  9818
2 20437  98.5908 192.8056 0011724  14.4884 345.6638 14.29837049220873
AO-16
1 20439U 90005D   94111.18104805  .00000026  00000-0  26948-4 0  7826
2 20439  98.5996 197.9018 0011731   3.2480 356.8778 14.29891814221456
DO-17
1 20440U 90005E   94110.72112935  .00000054  00000-0  38032-4 0  7817
2 20440  98.5998 197.7505 0011875   4.5921 355.5369 14.30031331221401
WO-18
1 20441U 90005F   94107.26692366  .00000031  00000-0  28871-4 0  7820
2 20441  98.6004 194.3449 0012684  14.5403 345.6140 14.30005376220918
LO-19
1 20442U 90005G   94107.24917380  .00000036  00000-0  30935-4 0  7802
2 20442  98.6010 194.5689 0013020  14.0065 346.1473 14.30100632220925
UO-22
1 21575U 91050B   94109.22574452  .00000073  00000-0  39328-4 0  4836
2 21575  98.4387 184.9054 0008544 102.1158 258.0983 14.36908131144618
KO-23
1 22077U 92052B   94110.23751688 -.00000037  00000-0  10000-3 0  3787
2 22077  66.0880  41.3145 0012900 301.7999  58.1768 12.86285337 79338
AO-27
1 22825U 93061C   94108.17221452  .00000020  00000-0  25928-4 0  2786
2 22825  98.6579 184.5746 0009432  28.6059 331.5642 14.27618366 29120
IO-26
1 22826U 93061D   94107.73708649  .00000027  00000-0  28638-4 0  2784
```

```
2 22826  98.6576 184.1717 0009992  30.9978 329.1789 14.27721646 29063
KO-25
1 22830U 93061H   94110.70406310  .00000054  00000-0  39012-4 0  2823
2 22830  98.5586 184.9727 0011711 350.4794   9.6158 14.28047654 29493
NOAA-9
1 15427U 84123A   94101.00139129  .00000124  00000-0  89802-4 0  7791
2 15427  99.0564 150.6775 0015918  51.2366 309.0223 14.13606404480855
NOAA-10
1 16969U 86073A   94108.89085333  .00000018  00000-0  25824-4 0  6863
2 16969  98.5082 119.7012 0013675 138.3495 221.8729 14.24879342394169
MET-2/17
1 18820U 88005A   94111.01064387  .00000044  00000-0  25730-4 0  2807
2 18820  82.5405 314.0754 0016786 347.5650  12.5094 13.84713913314444
MET-3/2
1 19336U 88064A   94110.72808282  .00000051  00000-0  10000-3 0  2779
2 19336  82.5451   4.3488 0018532  47.7701 312.4996 13.16966458275693
NOAA-11
1 19531U 88089A   94100.87099016  .00000087  00000-0  71741-4 0  5924
2 19531  99.1690  88.1470 0011599 328.2207  31.8263 14.12974927285714
MET-2/18
1 19851U 89018A   94111.19644899  .00000069  00000-0  48393-4 0  2793
2 19851  82.5218 189.3509 0015717  31.1221 329.0865 13.84362770259806
MET-3/3
1 20305U 89086A   94111.24146181  .00000044  00000-0  10000-3 0   289
2 20305  82.5505 309.3582 0007696  86.2726 273.9313 13.04415154215471
MET-2/19
1 20670U 90057A   94109.89761247  .00000023  00000-0  79036-5 0  7817
2 20670  82.5415 254.7566 0015477 316.2043  43.7885 13.84189036192550
FY-1/2
1 20788U 90081A   94110.56820725  .00000134  00000-0  11727-3 0  9464
2 20788  98.8363 132.5398 0014827 164.2542 195.9085 14.01315653185630
MET-2/20
1 20826U 90086A   94111.17919044  .00000101  00000-0  78493-4 0  7908
2 20826  82.5277 191.3327 0012209 203.0180 157.0435 13.83579168179873
MET-3/4
1 21232U 91030A   94107.29308625  .00000050  00000-0  10000-3 0  6872
2 21232  82.5411 212.6313 0012918 345.0275  15.0439 13.16461141143343
NOAA-12
1 21263U 91032A   94106.92507229  .00000136  00000-0  80237-4 0    79
2 21263  98.6240 136.0374 0014052  55.2990 304.9508 14.22392169151826
MET-3/5
1 21655U 91056A   94109.55257500  .00000051  00000-0  10000-3 0  6955
2 21655  82.5554 158.1550 0013901 350.8311   9.2571 13.16829738128744
MET-2/21
1 22782U 93055A   94111.06886170  .00000016  00000-0  10562-5 0  2905
2 22782  82.5460 251.6896 0023402  28.8050 331.4400 13.83003730 32197
POSAT
1 22829U 93061G   94107.20487084  .00000052  00000-0  38620-4 0  2719
```

```
2 22829  98.6541 183.6629 0010797  19.2844 340.8746 14.28018464 28993
MIR
1 16609U 86017A   94111.21750077  .00004090  00000-0  58434-4 0  5749
2 16609  51.6453 111.7160 0015230 167.5089 192.6283 15.58719614467153
HUBBLE
1 20580U 90037B   94111.23915846  .00000605  00000-0  45213-4 0  4690
2 20580  28.4697 241.7697 0005819 209.4240 150.6019 14.90578956 20887
GRO
1 21225U 91027B   94109.53006684  .00003815  00000-0  84563-4 0   848
2 21225  28.4608 279.2647 0003636 266.8444  93.1785 15.40645635 47880
UARS
1 21701U 91063B   94111.19757853 -.00001801  00000-0 -13661-3 0  5045
2 21701  56.9862  27.4374 0004876  90.7374 269.4218 14.96394646142406
/EX

------------------------------

Date: 22 Apr 94 14:10:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$112.MICRO.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT  $ORBS-112.D
Orbital Elements  112.MICROS

HR AMSAT ORBITAL ELEMENTS FOR THE MICROSATS
FROM WA5QGD FORT WORTH,TX April 22, 1994
BID: $ORBS-112.D
TO ALL RADIO AMATEURS BT

Satellite: UO-14
Catalog number: 20437
Epoch time:      94107.20453956
Element set:     981
Inclination:       98.5908 deg
RA of node:       192.8056 deg
Eccentricity:    0.0011724
Arg of perigee:    14.4884 deg
Mean anomaly:     345.6638 deg
Mean motion:   14.29837049 rev/day
Decay rate:        4.2e-07 rev/day^2
Epoch rev:           22087
Checksum:              326

Satellite: AO-16
Catalog number: 20439
Epoch time:      94111.18104805
Element set:     782
```

```
Inclination:       98.5996 deg
RA of node:       197.9018 deg
Eccentricity:    0.0011731
Arg of perigee:     3.2480 deg
Mean anomaly:     356.8778 deg
Mean motion:   14.29891814 rev/day
Decay rate:        2.6e-07 rev/day^2
Epoch rev:           22145
Checksum:              320

Satellite: DO-17
Catalog number: 20440
Epoch time:      94110.72112935
Element set:     781
Inclination:       98.5998 deg
RA of node:       197.7505 deg
Eccentricity:    0.0011875
Arg of perigee:     4.5921 deg
Mean anomaly:     355.5369 deg
Mean motion:   14.30031331 rev/day
Decay rate:        5.4e-07 rev/day^2
Epoch rev:           22140
Checksum:              288

Satellite: WO-18
Catalog number: 20441
Epoch time:      94107.26692366
Element set:     782
Inclination:       98.6004 deg
RA of node:       194.3449 deg
Eccentricity:    0.0012684
Arg of perigee:    14.5403 deg
Mean anomaly:     345.6140 deg
Mean motion:   14.30005376 rev/day
Decay rate:        3.1e-07 rev/day^2
Epoch rev:           22091
Checksum:              278

Satellite: LO-19
Catalog number: 20442
Epoch time:      94107.24917380
Element set:     780
Inclination:       98.6010 deg
RA of node:       194.5689 deg
Eccentricity:    0.0013020
Arg of perigee:    14.0065 deg
Mean anomaly:     346.1473 deg
Mean motion:   14.30100632 rev/day
```

```
Decay rate:        3.6e-07 rev/day^2
Epoch rev:           22092
Checksum:              263

Satellite: UO-22
Catalog number: 21575
Epoch time:      94109.22574452
Element set:     483
Inclination:       98.4387 deg
RA of node:       184.9054 deg
Eccentricity:    0.0008544
Arg of perigee:   102.1158 deg
Mean anomaly:     258.0983 deg
Mean motion:   14.36908131 rev/day
Decay rate:        7.3e-07 rev/day^2
Epoch rev:           14461
Checksum:              310

Satellite: KO-23
Catalog number: 22077
Epoch time:      94110.23751688
Element set:     378
Inclination:       66.0880 deg
RA of node:        41.3145 deg
Eccentricity:    0.0012900
Arg of perigee:   301.7999 deg
Mean anomaly:      58.1768 deg
Mean motion:   12.86285337 rev/day
Decay rate:       -3.7e-07 rev/day^2
Epoch rev:            7933
Checksum:              316

Satellite: AO-27
Catalog number: 22825
Epoch time:      94108.17221452
Element set:     278
Inclination:       98.6579 deg
RA of node:       184.5746 deg
Eccentricity:    0.0009432
Arg of perigee:    28.6059 deg
Mean anomaly:     331.5642 deg
Mean motion:   14.27618366 rev/day
Decay rate:        2.0e-07 rev/day^2
Epoch rev:            2912
Checksum:              313

Satellite: IO-26
Catalog number: 22826
```

Epoch time: 94107.73708649
Element set: 278
Inclination: 98.6576 deg
RA of node: 184.1717 deg
Eccentricity: 0.0009992
Arg of perigee: 30.9978 deg
Mean anomaly: 329.1789 deg
Mean motion: 14.27721646 rev/day
Decay rate: 2.7e-07 rev/day^2
Epoch rev: 2906
Checksum: 361

Satellite: KO-25
Catalog number: 22830
Epoch time: 94110.70406310
Element set: 282
Inclination: 98.5586 deg
RA of node: 184.9727 deg
Eccentricity: 0.0011711
Arg of perigee: 350.4794 deg
Mean anomaly: 9.6158 deg
Mean motion: 14.28047654 rev/day
Decay rate: 5.4e-07 rev/day^2
Epoch rev: 2949
Checksum: 306

/EX

Date: 22 Apr 94 14:13:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$112.MISC.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT $ORBS-112.M
Orbital Elements 112.MISC

HR AMSAT ORBITAL ELEMENTS FOR MANNED AND MISCELLANEOUS SATELLITES
FROM WA5QGD FORT WORTH,TX April 22, 1994
BID: $ORBS-112.M
TO ALL RADIO AMATEURS BT

Satellite: POSAT
Catalog number: 22829
Epoch time: 94107.20487084
Element set: 271
Inclination: 98.6541 deg

```
RA of node:       183.6629 deg
Eccentricity:    0.0010797
Arg of perigee:    19.2844 deg
Mean anomaly:     340.8746 deg
Mean motion:   14.28018464 rev/day
Decay rate:        5.2e-07 rev/day^2
Epoch rev:            2899
Checksum:              322

Satellite: MIR
Catalog number: 16609
Epoch time:      94111.21750077
Element set:     574
Inclination:       51.6453 deg
RA of node:       111.7160 deg
Eccentricity:    0.0015230
Arg of perigee:   167.5089 deg
Mean anomaly:     192.6283 deg
Mean motion:   15.58719614 rev/day
Decay rate:      4.090e-05 rev/day^2
Epoch rev:           46715
Checksum:              293

Satellite: HUBBLE
Catalog number: 20580
Epoch time:      94111.23915846
Element set:     469
Inclination:       28.4697 deg
RA of node:       241.7697 deg
Eccentricity:    0.0005819
Arg of perigee:   209.4240 deg
Mean anomaly:     150.6019 deg
Mean motion:   14.90578956 rev/day
Decay rate:       6.05e-06 rev/day^2
Epoch rev:            2088
Checksum:              318

Satellite: GRO
Catalog number: 21225
Epoch time:      94109.53006684
Element set:      84
Inclination:       28.4608 deg
RA of node:       279.2647 deg
Eccentricity:    0.0003636
Arg of perigee:   266.8444 deg
Mean anomaly:      93.1785 deg
Mean motion:   15.40645635 rev/day
Decay rate:      3.815e-05 rev/day^2
```

```
Epoch rev:            4788
Checksum:              320

Satellite: UARS
Catalog number: 21701
Epoch time:      94111.19757853
Element set:     504
Inclination:       56.9862 deg
RA of node:        27.4374 deg
Eccentricity:    0.0004876
Arg of perigee:    90.7374 deg
Mean anomaly:     269.4218 deg
Mean motion:   14.96394646 rev/day
Decay rate:     -1.801e-05 rev/day^2
Epoch rev:           14240
Checksum:              313

/EX

------------------------------

Date: 22 Apr 94 14:08:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$112.OSCAR.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT  $ORBS-112.O
Orbital Elements  112.OSCAR

HR AMSAT ORBITAL ELEMENTS FOR OSCAR SATELLITES
FROM WA5QGD FORT WORTH,TX April 22, 1994
BID: $ORBS-112.O
TO ALL RADIO AMATEURS BT

Satellite: AO-10
Catalog number: 14129
Epoch time:      94105.57495596
Element set:     274
Inclination:       27.1808 deg
RA of node:       332.1525 deg
Eccentricity:    0.6020888
Arg of perigee:   170.5875 deg
Mean anomaly:     209.8109 deg
Mean motion:    2.05879133 rev/day
Decay rate:      -1.35e-06 rev/day^2
Epoch rev:            8149
Checksum:              321
```

```
Satellite: UO-11
Catalog number: 14781
Epoch time:      94109.04608251
Element set:     682
Inclination:       97.7897 deg
RA of node:       126.5360 deg
Eccentricity:    0.0013014
Arg of perigee:    97.3621 deg
Mean anomaly:     262.9075 deg
Mean motion:   14.69192084 rev/day
Decay rate:       1.87e-06 rev/day^2
Epoch rev:           54162
Checksum:              314

Satellite: RS-10/11
Catalog number: 18129
Epoch time:      94108.21130139
Element set:     890
Inclination:       82.9285 deg
RA of node:        13.1768 deg
Eccentricity:    0.0010648
Arg of perigee:   184.3188 deg
Mean anomaly:     175.7885 deg
Mean motion:   13.72335054 rev/day
Decay rate:        3.8e-07 rev/day^2
Epoch rev:           34168
Checksum:              313

Satellite: AO-13
Catalog number: 19216
Epoch time:      94102.44882608
Element set:     901
Inclination:       57.8540 deg
RA of node:       258.2544 deg
Eccentricity:    0.7212470
Arg of perigee:   338.9704 deg
Mean anomaly:       2.1469 deg
Mean motion:    2.09726746 rev/day
Decay rate:      -5.91e-06 rev/day^2
Epoch rev:            4463
Checksum:              313

Satellite: FO-20
Catalog number: 20480
Epoch time:      94106.93317526
Element set:     676
Inclination:       99.0282 deg
RA of node:       270.3543 deg
```

```
Eccentricity:    0.0541421
Arg of perigee:   118.2022 deg
Mean anomaly:     247.4845 deg
Mean motion:   12.83225494 rev/day
Decay rate:       -1.3e-07 rev/day^2
Epoch rev:           19627
Checksum:              293

Satellite: AO-21
Catalog number: 21087
Epoch time:      94110.16310556
Element set:     455
Inclination:       82.9443 deg
RA of node:       185.6439 deg
Eccentricity:    0.0033668
Arg of perigee:   245.5203 deg
Mean anomaly:     114.2440 deg
Mean motion:   13.74538249 rev/day
Decay rate:        9.3e-07 rev/day^2
Epoch rev:           16161
Checksum:              290

Satellite: RS-12/13
Catalog number: 21089
Epoch time:      94108.30764982
Element set:     680
Inclination:       82.9200 deg
RA of node:        55.8515 deg
Eccentricity:    0.0027920
Arg of perigee:   277.6170 deg
Mean anomaly:      82.1811 deg
Mean motion:   13.74038670 rev/day
Decay rate:        2.8e-07 rev/day^2
Epoch rev:           16042
Checksum:              296

Satellite: ARSENE
Catalog number: 22654
Epoch time:      94110.18598093
Element set:     249
Inclination:        1.7263 deg
RA of node:       102.2335 deg
Eccentricity:    0.2923372
Arg of perigee:   178.7851 deg
Mean anomaly:     185.7394 deg
Mean motion:    1.42200998 rev/day
Decay rate:       -7.8e-07 rev/day^2
Epoch rev:              37
```

```
Checksum:              300

/EX

------------------------------

Date: 22 Apr 94 14:11:00 GMT
From: news-mail-gateway@ucsd.edu
Subject: ORBS$112.WEATH.AMSAT
To: info-hams@ucsd.edu

SB KEPS @ AMSAT  $ORBS-112.W
Orbital Elements  112.WEATHER

HR AMSAT ORBITAL ELEMENTS FOR WEATHER SATELLITES
FROM WA5QGD FORT WORTH,TX April 22, 1994
BID: $ORBS-112.W
TO ALL RADIO AMATEURS BT

Satellite: NOAA-9
Catalog number: 15427
Epoch time:      94101.00139129
Element set:     779
Inclination:       99.0564 deg
RA of node:       150.6775 deg
Eccentricity:    0.0015918
Arg of perigee:    51.2366 deg
Mean anomaly:     309.0223 deg
Mean motion:   14.13606404 rev/day
Decay rate:       1.24e-06 rev/day^2
Epoch rev:           48085
Checksum:              292

Satellite: NOAA-10
Catalog number: 16969
Epoch time:      94108.89085333
Element set:     686
Inclination:       98.5082 deg
RA of node:       119.7012 deg
Eccentricity:    0.0013675
Arg of perigee:   138.3495 deg
Mean anomaly:     221.8729 deg
Mean motion:   14.24879342 rev/day
Decay rate:        1.8e-07 rev/day^2
Epoch rev:           39416
Checksum:              339

Satellite: MET-2/17
```

```
Catalog number: 18820
Epoch time:      94111.01064387
Element set:     280
Inclination:       82.5405 deg
RA of node:       314.0754 deg
Eccentricity:    0.0016786
Arg of perigee:   347.5650 deg
Mean anomaly:      12.5094 deg
Mean motion:   13.84713913 rev/day
Decay rate:        4.4e-07 rev/day^2
Epoch rev:           31444
Checksum:              286

Satellite: MET-3/2
Catalog number: 19336
Epoch time:      94110.72808282
Element set:     277
Inclination:       82.5451 deg
RA of node:         4.3488 deg
Eccentricity:    0.0018532
Arg of perigee:    47.7701 deg
Mean anomaly:     312.4996 deg
Mean motion:   13.16966458 rev/day
Decay rate:        5.1e-07 rev/day^2
Epoch rev:           27569
Checksum:              321

Satellite: NOAA-11
Catalog number: 19531
Epoch time:      94100.87099016
Element set:     592
Inclination:       99.1690 deg
RA of node:        88.1470 deg
Eccentricity:    0.0011599
Arg of perigee:   328.2207 deg
Mean anomaly:      31.8263 deg
Mean motion:   14.12974927 rev/day
Decay rate:        8.7e-07 rev/day^2
Epoch rev:           28571
Checksum:              320

Satellite: MET-2/18
Catalog number: 19851
Epoch time:      94111.19644899
Element set:     279
Inclination:       82.5218 deg
RA of node:       189.3509 deg
Eccentricity:    0.0015717
```

```
Arg of perigee:    31.1221 deg
Mean anomaly:     329.0865 deg
Mean motion:   13.84362770 rev/day
Decay rate:        6.9e-07 rev/day^2
Epoch rev:           25980
Checksum:              335

Satellite: MET-3/3
Catalog number: 20305
Epoch time:      94111.24146181
Element set:      28
Inclination:       82.5505 deg
RA of node:       309.3582 deg
Eccentricity:    0.0007696
Arg of perigee:    86.2726 deg
Mean anomaly:     273.9313 deg
Mean motion:   13.04415154 rev/day
Decay rate:        4.4e-07 rev/day^2
Epoch rev:           21547
Checksum:              277

Satellite: MET-2/19
Catalog number: 20670
Epoch time:      94109.89761247
Element set:     781
Inclination:       82.5415 deg
RA of node:       254.7566 deg
Eccentricity:    0.0015477
Arg of perigee:   316.2043 deg
Mean anomaly:      43.7885 deg
Mean motion:   13.84189036 rev/day
Decay rate:        2.3e-07 rev/day^2
Epoch rev:           19255
Checksum:              329

Satellite: FY-1/2
Catalog number: 20788
Epoch time:      94110.56820725
Element set:     946
Inclination:       98.8363 deg
RA of node:       132.5398 deg
Eccentricity:    0.0014827
Arg of perigee:   164.2542 deg
Mean anomaly:     195.9085 deg
Mean motion:   14.01315653 rev/day
Decay rate:       1.34e-06 rev/day^2
Epoch rev:           18563
Checksum:              318
```

```
Satellite: MET-2/20
Catalog number: 20826
Epoch time:      94111.17919044
Element set:     790
Inclination:       82.5277 deg
RA of node:       191.3327 deg
Eccentricity:    0.0012209
Arg of perigee:   203.0180 deg
Mean anomaly:     157.0435 deg
Mean motion:   13.83579168 rev/day
Decay rate:       1.01e-06 rev/day^2
Epoch rev:           17987
Checksum:              294

Satellite: MET-3/4
Catalog number: 21232
Epoch time:      94107.29308625
Element set:     687
Inclination:       82.5411 deg
RA of node:       212.6313 deg
Eccentricity:    0.0012918
Arg of perigee:   345.0275 deg
Mean anomaly:      15.0439 deg
Mean motion:   13.16461141 rev/day
Decay rate:        5.0e-07 rev/day^2
Epoch rev:           14334
Checksum:              261

Satellite: NOAA-12
Catalog number: 21263
Epoch time:      94106.92507229
Element set:       7
Inclination:       98.6240 deg
RA of node:       136.0374 deg
Eccentricity:    0.0014052
Arg of perigee:    55.2990 deg
Mean anomaly:     304.9508 deg
Mean motion:   14.22392169 rev/day
Decay rate:       1.36e-06 rev/day^2
Epoch rev:           15182
Checksum:              280

Satellite: MET-3/5
Catalog number: 21655
Epoch time:      94109.55257500
Element set:     695
Inclination:       82.5554 deg
```

```
RA of node:       158.1550 deg
Eccentricity:    0.0013901
Arg of perigee:   350.8311 deg
Mean anomaly:       9.2571 deg
Mean motion:   13.16829738 rev/day
Decay rate:        5.1e-07 rev/day^2
Epoch rev:           12874
Checksum:              299

Satellite: MET-2/21
Catalog number: 22782
Epoch time:      94111.06886170
Element set:     290
Inclination:       82.5460 deg
RA of node:       251.6896 deg
Eccentricity:    0.0023402
Arg of perigee:    28.8050 deg
Mean anomaly:     331.4400 deg
Mean motion:   13.83003730 rev/day
Decay rate:        1.6e-07 rev/day^2
Epoch rev:            3219
Checksum:              261

/EX
```

Date: 23 Apr 94 02:05:41 GMT
From: news-mail-gateway@ucsd.edu
Subject: RACES Bulletins
To: info-hams@ucsd.edu

Thanks to whoever posts the RACES bulletins. Unfortunately, I missed #315 and can't find it in the archives at ucsd.edu. I'd appreciate it if it could be reposted, sent to me, or be put in the archive with the rest of them.

Thanks.

Jim, NX9F
ley@uwstout.edu

Date: 22 Apr 94 23:51:59 GMT
From: dog.ee.lbl.gov!ihnp4.ucsd.edu!news.cerf.net!ccnet.com!ccnet.com!not-for-mail@ucbvax.berkeley.edu
Subject: Tech Call Signs--Region 9
To: info-hams@ucsd.edu

744484WS@GBVAXA.UWGB.EDU wrote:
: Hi there! I just passed my Tech no-code exams yesterday, and a buddy in
: Madison, WI told me you guys might know the latest call signs to be assigned to
: new Techs in Region 9 (I'm in Green Bay, WI--how bout them Packers?)

: The address is: 744484ws@gbvaxa.uwgb.edu
: (Yes, that's the UWGB from the NCAA's that kicked Cal's ass. Huh huh
: huh...that wuz cool.)

: Thanks much!

: Will Sentowski

Well I see they gave out N9WPG on the first of April so after your three
month wait....any one who would flame the Cal Bears will wait a long time...

You know when they finally find your application they will have run out
of N9 calls and will give you one of those way cool novice KB9 calls ;) ;)

Go Bears!

--
     Bob Wilkins   work   bwilkins@cave.org
 Berkeley, California   home   rwilkins@ccnet.com
     94701-0710   play   n6fri@n6eeg.#nocal.ca.usa.noam

Date: 23 Apr 94 01:42:45 GMT
From: agate!library.ucla.edu!csulb.edu!csus.edu!netcom.com!
kludge@ucbvax.berkeley.edu
To: info-hams@ucsd.edu

References <01HBH376EN94QO6L96@VEGA.SELU.EDU>, <2p99ef$1h5@eis.calstate.edu>,
<2p9gpg$lmn@hp-col.col.hp.com>
Subject : Re: Confiscated HT

In article <2p9gpg$lmn@hp-col.col.hp.com> gregt@col.hp.com (Greg Tarcza) writes:
>Steven Adams (sadams@eis.calstate.edu) wrote:
>: If my HT had an extended tx and I had use of a comercial freq. through my
>: business (We have a repeater set up around 452 mhz), could I use my HT
>: to communicate through the repeater (legally)??
>
>NO!
>Because your HT is not type-accepted for use in commercial service.

However, amateur equipment doesn't have to be type accepted. So, if
your business give you an HT that is type-accepted for the business
band, there's nothing to keep you from programming ham frequencies into
it and using it on the ham bands. That's fine, and strongly recommended.

For years, I converted surplus commercial gear to use on the ham bands,
and am amazed that anyone would ever want to convert ham gear to use
on the business bands.
--scott
--
"C'est un Nagra. C'est suisse, et tres, tres precis."

Date: 21 Apr 1994 15:05:03 GMT
From: ihnp4.ucsd.edu!swrinde!emory!news-feed-2.peachnet.edu!news-
feed-1.peachnet.edu!news.duke.edu!acpub.duke.edu!thomasr@network.ucsd.edu
To: info-hams@ucsd.edu

References <2p3odm$l5q@geraldo.cc.utexas.edu>, <2p44gp$82e@tuba.cit.cornell.edu>,
<CoM4sC.CM4@fc.hp.com>.ed
Subject : Re: 10m opening

How long do these late spring/summer E skip periods generally last?
ron thomas

End of Info-Hams Digest V94 #446
****